

ABSTRACT OF THE DISCLOSURE

A process of manufacturing a tooth of a dipper bucket of a shovel is disclosed. The tooth has a larger joining portion coupled to the dipper bucket and a sharp portion. The process comprises cooling the molded tooth in a furnace at about 920°C, suddenly cooling the tooth in a fluid contained in the furnace, heating the tooth at about 460°C, slowly cooling the tooth in the air, supporting the tooth in the furnace with the joining portion immersed in the fluid and the sharp portion exposed in the air, and producing the finished tooth. The teeth are less brittle and more ductile while having a sufficient hardness. The teeth can dig further into earth for increasing load of the dipper bucket per shovel.